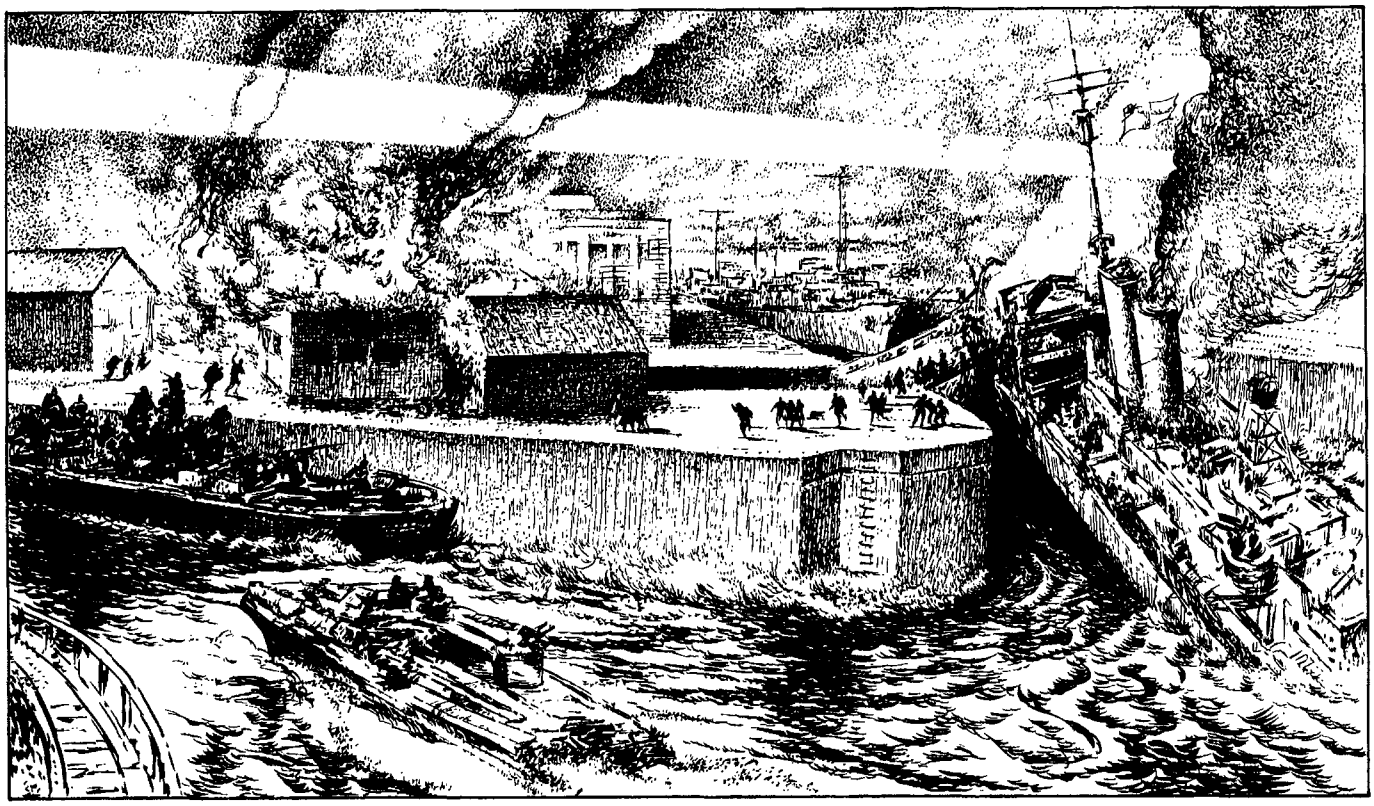


The Raid on St. Nazaire

Special Operations Planning

CAPTAIN FRANK K. SOBCHAK

On the night of 27-28 March 1942, British Commandos conducted a raid on St. Nazaire, France, to destroy the port's dry dock and related facilities. Although this attack accomplished its mission, a review of historical data shows that it did so at the cost of inordinately high losses in men killed, wounded, and captured among the attacking force.

The Combined Operation Command, the World War II British equivalent of the U.S. Special Operations Command, had chosen St. Nazaire in early 1942 as a strategic target in an effort to influence the war at sea. At that point, England was being strangled by German control over the sea lines of communication. German submarines, surface raiders, and warships were causing almost insurmountable casualties among the British and American merchant marines. In the first six months after the United States entered the war, six German U-boats sank more than half of the total U.S. Merchant Marine tonnage.

To make matters worse, the Germans had successfully sailed their last large battleship, the *Tirpitz*, to Trondheim, Norway, to protect her from British strikes. The *Tirpitz* displaced 45,500 tons and was as large as any British battleship. Her sister, the *Bismarck*, had caused a monumental ship-hunt in 1941 when she went to sea and sank the British battlecruiser *Hood*. Because of this lurking threat, England maintained several ships on quick standby in case the *Tirpitz* sailed, thus tying down ships that were desperately needed elsewhere. Winston Churchill, Prime Minister of England, wrote, "The whole strategy of the war turns at this period to this ship which is holding four times the number of British capital ships paralyzed, to say nothing of the two new American battleships retained in the Atlantic."

Fortunately for the British, there were few ports where such a large ship could be repaired and serviced. St. Nazaire, France, the battleship's home port (Map 1), had both the only dry dock large enough (85,000-ton capacity) and the only trained labor able to service the *Tirpitz*. Since the port could not be eliminated through airpower (the bombing accuracy of World War II aircraft left much to be desired), commandos were chosen to eliminate the target.

A scant one month before mission execution, the leaders of the raid, Lieutenant Colonel A.C. Newman and Commander R.E.D. Ryder, were ordered to begin planning and

preparation. After working through many problems, they settled on a plan whose mission was generally as follows: Number 2 Commando (Ryder's unit) with attachments would conduct a raid on St. Nazaire by 30 March 1942 to destroy the dry dock and other port facilities in order to deny its use to the *Tirpitz*. The attachments comprised members of 1st, 3d, 4th, 5th, 9th, and 12th Commandos, a total of seven different units.

The Commandos were chosen because they were an elite force whose specialty was striking from the sea. They were highly trained and motivated, all volunteers with superb physical conditioning and training. Their emphasis on fitness was so intense that "weekly marches exceeding 50 miles were said to be routine. One troop marched in fighting order 63 miles in 23 hours and 10 minutes."

The plan involved 19 naval vessels and 611 personnel (257 Commandos and 354 sailors) who would sail six miles up the Loire River to St. Nazaire. The river had a dredged channel, but many German ships, along with French fishing trawlers (potentially carrying Vichy French sympathizers) were expected to be traveling down it. Consequently, a route was chosen that passed over shoals so shallow that, after the war, professional Loire River pilots could not believe it had been possible. Additionally, high tide was selected for the mission to aid in the infiltration.

The port of St. Nazaire itself had a population of 50,000 in addition to its German defenders, and was divided into three main parts, the old town, the new town, and the port (Map 2). The port was made up of the dry dock and two basins to berth ships and protect them from the effect of the tides (through their locks and caissons).

The Naval Flotilla

The flagship of the 19-ship flotilla was the *HMS Campbeltown*, a heavily modified ex-American World War I four-stack destroyer. The draft of the destroyer had been reduced from 14 feet to 12 feet by removing all unneeded equipment. Additionally, hidden in her bow were nearly five tons of explosives, encased in concrete for protection against a crashing stop. The *Campbeltown* also acted as the insertion means for approximately 80 to 90 Commandos.

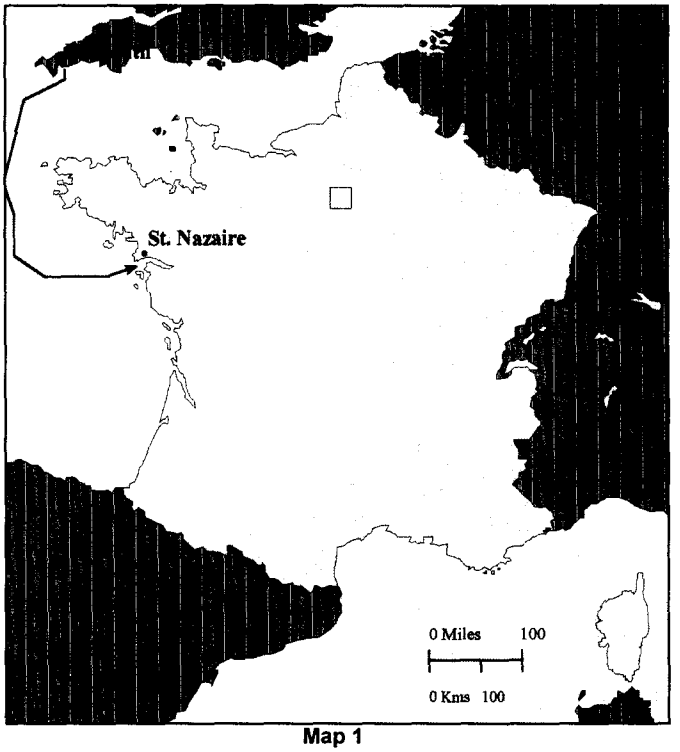
The attackers also included a combination of 16 motor launches and torpedo boats, which were 112 foot-long boats that could carry approximately 15 Commandos each. The naval command ship was a motor gunboat (also basically a small patrol craft), which carried Commander Ryder and his small staff. The fleet was rounded out by a motor torpedo boat, a 68-foot boat that had been specially modified to carry two time-delay torpedoes, each with a 1,800-pound warhead.

An extensive deception plan was prepared to help achieve surprise: Once the mission started, all vessels would fly the German naval flag until they were fired upon. To further help confuse the enemy, the *Campbeltown* had two funnels removed and two cut off to look like the raked-back stacks of a German *Moewe* class destroyer. A German-speaking Commando was also placed on a signaling lamp in case the Germans tried to signal the flotilla. Finally, a demonstration was planned in the form of an air raid on St. Nazaire. The planners thought that such a strike would divert German attention and allow the Commandos to sneak in undetected.

To further ensure the element of surprise, tight security measures were employed to maintain operational security. During the rehearsals for the mission, the Commandos practiced on British port facilities similar to those at St. Nazaire. They were told, however, that they were practicing for the possibility that they would later have to destroy their own ports to prevent them from falling into German hands (the possibility of a German invasion in 1942 was still quite real). Shoulder flashes and all signs of Commando identity were removed also during the train up. Additionally, very few officers were told about the demolitions in the bow of the *Campbeltown*, to prevent the Germans from attempting to disarm it.

Once the flotilla had arrived at the St. Nazaire harbor, the *Campbeltown* would ram the dry dock gates, and her crew would scuttle the ship while the Commandos disembarked using rope ladders. The motor launches and torpedo motor launches would then disembark their Commandos at a pier known as the Old Mole and at the gate entrance to the old entrance to the Normandy Basin. The commandos would then proceed to carry out the demolition of their own targets before returning to the boats.

The commandos originally had only three targets, a North and South winding house (which opened and closed the caissons to the dry dock) and the pumphouse (which pumped water into and out of the dry dock). Sometime during the planning process, however, eight other targets were added, for a total of eleven. These additional targets included fuel storage tanks near the dry dock, swing bridges at the old entrance and the entrance to Penhouet Basin, lock gates at the old entrance, two fixed bridges at the main entrance, and two lock gates at the main entrance. The planners targeted



Map 1

bridges because they thought if the bridges were destroyed they would fall into the water and possibly block shipping. The lock gates were selected because their destruction would open the port to the effects of tides, seriously hampering its effectiveness.

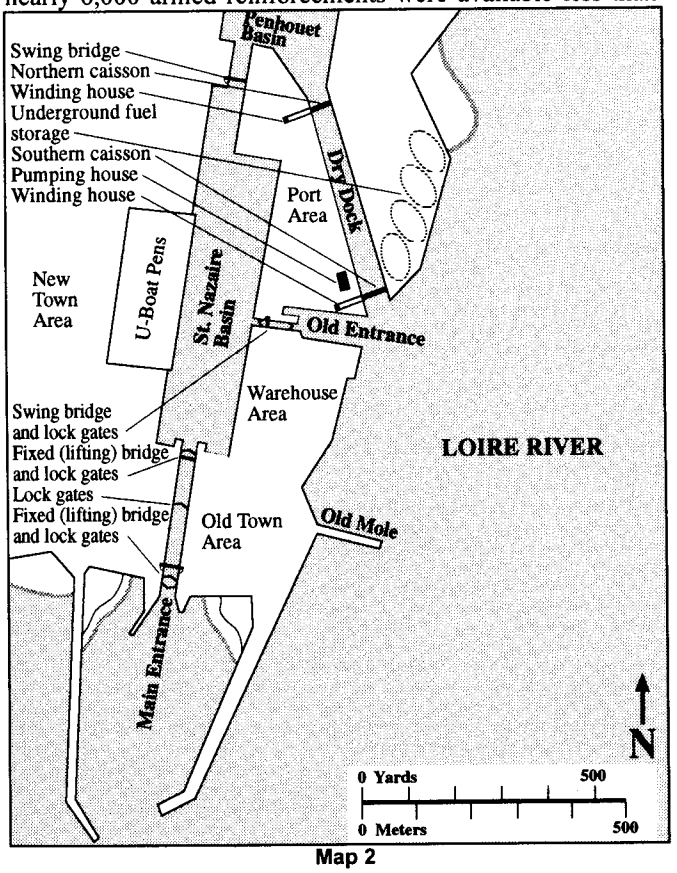
Task Organization

Colonel Newman task-organized the Commandos into three groups for each target: assault, protection, and demolition. The assault element acted as the outer ring of protection. Their purpose was to make contact with the enemy and clear the route for the other two elements. The protection element provided the inner ring of security, staying near and guarding the almost defenseless demolition element. The demolition element carried only pistols for self defense, but carried 90 to 95 pounds of explosives to strike at their targets. The Commandos, armed with Thompson submachineguns, and Bren and Lewis light machineguns, were as well-armed as their German opponents.

Once the Commandos had destroyed their targets, they would return to their original landing site and reboard the launches. During the exfiltration, the motor torpedo boat would fire its time-delay torpedoes at the old entrance. Hours later, both the demolitions from the *Campbeltown* and the torpedoes would explode.

Enemy Situation

The German opposition was composed of approximately 300 Army guards and an unidentified number of armed Navy and Merchant Marine sailors. To make matters worse, nearly 6,000 armed reinforcements were available less than two miles away with very short reaction times. (Although these troops did not compare with the Commandos in morale and general fitness, they were heavily armed with a variety of infantry weapons.) The port was further protected against both air and naval attack by numerous guns and cannons. At least 23 antiaircraft guns (25mm to 40mm), and 33 artillery pieces (70mm and up) were available to fire on the British raiding force, along with six searchlights to direct fire during the night (Map 3).



Map 2

Rehearsals

The Commandos conducted limited preparations in the one month they had before the operation. They took their demolitions teams to three different British ports to practice the calculation and placement of charges, but they never did any live demolition training against port facilities, relying instead on the principle that if you put a lot of demolitions on one target, you would certainly destroy it. When the commanders finally put together their entire force (only one week before the operation, causing massive confusion), they chose to do a rehearsal with less than half of their forces. To make matters worse, this rehearsal discovered many problems that were not corrected before the deployment. First, they found that they had extreme difficulty docking quickly and getting the Commandos off the motor launches onto the piers. They also discovered that they had monumental problems controlling the multiple elements. To add insult to injury, their assault force was beaten by the British Home Guard, a force not noted for its training, equipment, or tactical skills at that time.

Intelligence

In spite of other weaknesses, the intelligence available for the operation was outstanding. The raid leaders had extensive authority to re-task aerial reconnaissance aircraft, and were able to get a large amount of imagery for the mission. From this imagery, they built a scale model that would help all personnel mentally rehearse and learn where they would be moving. The commandos gained access to the Cardiff dockmaster, who provided much useful information on how and where to place charges to close a port. The planners also received reports from members of the French Underground showing the exact location of the port's defenses. According to William H. McRaven, in his book *SPE OPS: Case Studies in Special Operations Warfare Theory and Practice* (Presidio Press, 1995), "The contractors who built the British dry dock *King George V* were the same ones who built the Normandie dry dock," and their information, made available to the raiders, basically gave them a blueprint of the port. This intelligence contributed greatly to the mission, because it helped acquaint the Commandos with the area so that they could accomplish their missions faster. The planners also received highly accurate hydrographic data for the river area, which would prove critical on the infiltration (and which became the reason for decreasing the *Campbeltown*'s draft).

Execution

Unfortunately for the British, their execution did not go as

smoothly as their plan. The mission, originally planned for 30 March 1942 was moved up to the night of 27-28 March because of favorable weather and tide conditions. Unfortunately, for security reasons, the bomber pilots who were supposed to execute a demonstration were never told the purpose of their attack. When they discovered that the target area was obscured by heavy clouds covering the area, the bombers withdrew, to avoid endangering the civilian population by indiscriminate blind bombing. This alerted the German commander in the area, who put his troops on alert, warning, "The conduct of the enemy aircraft is inexplicable and indicates suspicion of parachute landings" (McRaven).

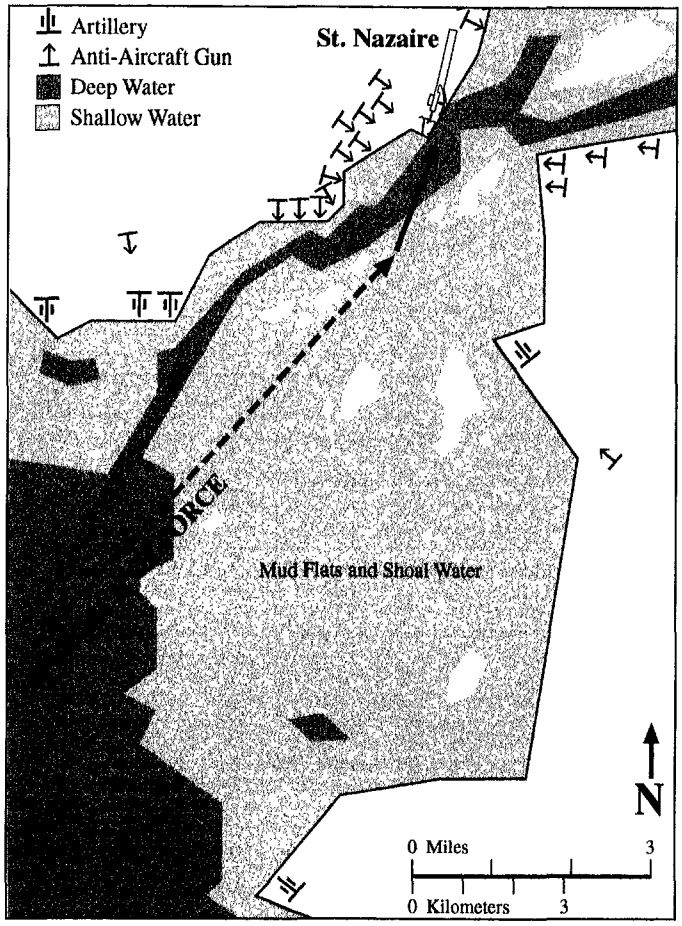
The modifications to the *Campbeltown* and the tide and water data proved critical, allowing the vessel to get within the harbor itself despite two scares when the ship slowed as she scraped over sandbars. Once inside the harbor, she was challenged by the Germans. A German-speaking Commando flashed a message identifying the flotilla as German and asking permission to enter the harbor as they had just been engaged by a British force. This deception and the ship's appearance worked for a short time, until they were challenged again. This time, Commander Ryder signaled with a flare gun, buying them more time. The Germans soon got edgy and some forces opened fire on the *Campbeltown*. The same Commando signaled them to cease fire, that they had engaged friendly forces. This again stopped the Germans, every second enabling the British to get closer to their target. By the time the Germans finally opened fire, it was too late; within seconds, the *Campbeltown* crashed into the gate of the Normandy dry dock at 0134; only four minutes later than had been planned.

The Commandos disembarked, but had problems getting the *Campbeltown*'s motor launches into the water. The pier at the Old Mole and the dock near the old entrance were so constricted that they could take only one or two boats in at a time to disembark the Commandos. The rest of the small, lightly armored boats had to loiter in the middle of the bay, nearly defenseless before the German arsenal of artillery and antiaircraft pieces. Many launches were sunk even before they could get their precious cargo to shore, drowning Commandos in their heavy gear amid the fire and oil from the wrecks.

The Commandos who got ashore fought hard and destroyed five of their targets—both winding houses, the pump house, the fuel storage tanks, and the swing bridge at the old entrance. Despite massive confusion and a total breakdown in command and control, at the designated exfiltration time, the Commandos began to make their way back to the piers. Some troops were evacuated, but by that time (two hours after they arrived) all but six launches had been sunk. Although six boats had left the port, two were caught and destroyed by German naval destroyers, and two more were scuttled on the way to England (transferring their Commandos to larger ships).

Results

The remaining British fought on, but were captured when they ran out of ammunition. British casualties numbered 169



Map 3

killed and 200 prisoners of war. Five Commandos were able to make it into the French Resistance-assisted escape and recovery network, eventually making their way to neutral Spain in care of the French Underground. The *Campbeltown* blew up at approximately 1030 on the 28th (an hour later than the time for which its eight-hour time-delay fuse had been set), with many engineers, soldiers, and German souvenir hunters aboard. The blast completely destroyed the gate to the dry dock, allowing water from the Loire River to pour in. Then, at 1600 the time-delay torpedoes exploded, destroying the gates to the old entrance. Following both blasts, the Germans—believing raids were still in the area—opened fire on anything that moved, thereby inflicting extensive casualties on their own personnel. The damage caused during the raid was extensive, and the dry dock would not reopen until after the war was over. Although no accurate numbers exist as to German casualties, reasonable sources place them between 200 and 600 killed.

Lessons Learned

The positive lessons from this raid are its use of creativity, intelligence, and mission completion.

Creativity. The most unorthodox portion of this mission—the use of the *Campbeltown*—was also its most successful. The ingenuity of disguising an old destroyer, secretly filling it with explosives, and then ramming it into the dry dock for later detonation cannot go understated. Without it, the entire mission could have failed.

Intelligence. Intelligence was a strong point of the mission, as the intelligence collectors had extensive information confirmed through both human intelligence and other intelligence sources. This intelligence proved crucial to the raid because it allowed the *Campbeltown* to bypass the channel, cross the shoals, and make it to the port itself. Additionally, it provided enough targeting data to ensure that the Commandos would be able to destroy their target when they actually got to it.

Target Analysis. The bottom line of the St. Nazaire raid is that, although it was a costly victory for the British assault force, they did accomplish their mission. Their target analysis ensured that they would accomplish their commander's intent. In terms of the criticality of the target selected, denying the enemy use of a critical dry dock for a period of three years was outstanding.

Complexity. The success of the St Nazaire raid was overshadowed by the large number of avoidable casualties; for that reason, the raid offers lessons that will help commanders charged with similar missions carry them out at less cost in men and materiel. Mission complexity was the root weakness for the St. Nazaire raid, and mistakes there had a domino effect, causing the planners to need more raiders and more time on target, and fracturing an already overstretched command and control system.

Time on Target (TOT). When the British planners expanded the scope of the raid from three targets to 11, they caused an increase in the amount of time they would need on target. This decision during the planning process was the critical error. For direct-action missions such as this, time is the most critical element. The longer an attacking force spends on the mission, the more time the enemy has to muster reinforcements. To make matters worse, SOF units (such as the Commandos in St. Nazaire) do not get reinforcements and react. So the longer an attacking force spends on the ground, the more the enemy combat power can increase, while the combat power of the assault force decreases through losses. A prudent force should therefore plan to spend as little time as possible in enemy territory. The time planned for the attack was two hours, a totally exorbitant amount of time. If planners had looked at how fast the Germans could mass their reinforcements and how fast they themselves were apt to take casualties, they should have decreased their TOT.

Surprise. Another consequence of a longer TOT is the loss of surprise. Special operations forces can sometimes overcome stronger conventional forces through the benefit of surprise. But in a direct-action mission, the longer an SOF unit stays in the battle area the more this benefit bleeds away. SOF units simply cannot engage in long-term protracted battles against conventional forces, because they do not have the depth of force or logistical means to sustain power. There is a limited window of opportunity when the enemy is surprised and cannot organize a proper defense. Exactly this situation occurred at St. Nazaire. British forces, constrained by multiple missions, spent two hours in France and completely lost the element of surprise. They stayed so long that the Germans were able to regain their footing and attack from a position of strength.

Command and Control. When the raid went from three targets to 11, the personnel required went from 200 to 600. This increase in personnel critically damaged an already strained command and control structure. As many as 50 separate elements (16 motor launches, 33 Commando elements, and one headquarters element) could have been required to act independently during the engagement and then reassemble for extraction. For all this, the British Commandos had a headquarters of eight personnel (who were ultimately forced to do more fighting than controlling) and not a single radio. The only signal planned was pyrotechnics to signal the extraction of the force. When the situation on the ground changed because of enemy pressure, the force was not able to adjust its plans because it lacked the means of command and control.

Exfiltration. The exfiltration plan presented difficulties. The planners had assumed that the motor launches could land the commandos and then loiter on site until extraction time. Even they estimated that their time on target would be two hours. It was unrealistic to expect wooden boats to survive six miles up an enemy-controlled river—which was covered by more than 80 guns of various calibers on both sides for more than two hours—once the element of surprise had been lost. As somber proof of this is the fact that the only motor launches that did escape left well under an hour after the start of the battle. Further evidence of poor planning exists in the withdrawal signal. When Colonel Newman finally decided to signal the withdrawal, he could not because the only flare gun used to give the signal had sunk with the Regimental Sergeant Major. (Ironically, by that time, there were no boats left on which to exfiltrate in any case.)

Finally, the raid on St. Nazaire shows why aircraft should not be used in deception or demonstration operations. As in the Son Tay raid and the U.S. invasion of Panama, the aircraft only serve to alert the defenders. An appropriate use of aircraft is to cordon off or isolate an objective but not as a demonstration.

In conclusion, the British raid on St. Nazaire was a costly victory. Poor planning led to a mission that was simply unrealistic. The Commandos' modified plan took too long, was too complex, suffered from poor command and control, and did not have a good exfiltration concept. If they had stuck with the original three-objective plan, they could have accomplished the mission in a shorter time and escaped with far fewer casualties. St. Nazaire will always remain an example of the importance of detailed, realistic planning for missions involving special operations forces.

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